

## HAND MYXOFIBROSSARCOMA AND THE IMPORTANCE OF THUMB OPPOSITION

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### Background

Myxofibrosarcoma (MFS) is a rare malignant soft tissue sarcoma, originates in the body's connective tissue, most commonly affecting elderly individuals. Usually occurs in extremities (75%), mostly the hand. Given the complexity of the hand's anatomy and function, treatment planning must be carefully managed, including surgical intervention and rehabilitation program. Preserving hand function, particularly thumb opposition, is crucial for grasp, manual dexterity and object manipulation. Losing this ability impacts hand functionality and quality of life.

### Case report

A 68-year-old male patient, right-handed, presented with a painless swelling in the 3rd interdigital space of his right hand with no history of trauma. Over 6 months, the swelling grew progressively and reduced movement and grip strength. Suspecting malignancy, an excisional biopsy was performed. Histopathological analysis confirmed MFS. The subsequent MRI demonstrated persistence of disease. The patient underwent amputation of the 3rd-5th fingers. Post-surgery, the patient was discharged to rehabilitation. During a 6-month rehabilitation program, the focus was on wound care, joint mobility of the remaining limb and adaptation to the new condition. At follow-up, the patient showed effective pinch capacity with 1st-2nd fingers, with similar strength comparable to the unaffected hand. Progressively started his activities of daily life in an adapted way, referring be autonomous in his self-care, eating and meal preparation, having restarted his gardening hobby. After discussion with the medical team, a passive silicone cosmetic prosthesis was prescribed. One year after the amputation, the patient remained free disease but maintained some residual functional limitations.

### Conclusion

MFS is often asymptomatic, leading to delayed diagnosis and significant functional loss. Timely diagnosis and clear surgical margins are essential for prognosis, but radical excision with amputation can severely affect functional outcomes. The challenge is preserving thumb function, especially opposition. This case highlights the critical role of thumb opposition in hand function and show the need for a multidisciplinary approach to ensure both oncological safety and functional preservation.

**Keywords:** Myxofibrossarcoma, tumb-opposition, rehabilitation, amputation, functional.